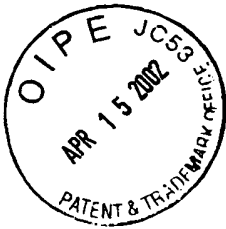


RECEIVED

APR 18 2002

TECH CENTER 1600/2900

SEQUENCE LISTING



<110> Sette, Alessandro
Gaeta, Federico
Grey, Howard M.
Sidney, John
Alexander, Jeffery L.
Epimmune Inc.

<120> Induction of Immune Response Against
Desired Determinants

<130> 018623-006250US

<140> US 09/707,738

<141> 2000-11-06

<150> US 08/121,101

<151> 1993-09-14

<150> US 08/305,871

<151> 1994-09-14

<150> US 08/485,218

<151> 1995-06-07

<150> US 60/010,510

<151> 1996-01-24

<150> US 08/788,822

<151> 1997-01-23

<150> US 09/310,462

<151> 1999-05-12

<160> 25

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> HA 307-319

<400> 1

Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
1 5 10

<210> 2

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> MBP 78-101

<400> 2
 Gly Arg Thr Gln Asp Glu Asn Pro Val Trp His Phe Phe Lys Asn Ile
 1 5 10 15
 Val Thr Pro Arg Thr Pro Pro Pro
 20

<210> 3
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> MT 65 kd 3-13

<400> 3
 Tyr Lys Thr Ile Ala Phe Asp Glu Glu Ala Arg Arg
 1 5 10

<210> 4
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> 717.01 combinatorial

68
 <400> 4
 Tyr Ala Arg Phe Gln Ser Gln Thr Thr Leu Lys Gln Lys Thr
 1 5 10

<210> 5
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Tet Tox 830-843, T-helper epitope from tetanus
 toxin p2, peptide 553.01

<400> 5
 Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
 1 5 10

<210> 6
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Tet Tox 1272-1284

<400> 6
 Asn Gly Gln Ile Gly Asn Asp Pro Asn Arg Asp Ile Leu
 1 5 10

<210> 7
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
<223> ROIV

<400> 7
Tyr Ala His Ala Ala His Ala Ala His Ala Ala His Ala Ala His Ala
1 5 10 15
Ala

<210> 8
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Ova 323-326

<400> 8
Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn Glu
1 5 10

<210> 9
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> lambda rep 12-26

<400> 9
Tyr Leu Glu Asp Ala Arg Arg Leu Lys Ala Ile Tyr Glu Lys Lys Lys
1 5 10 15

<210> 10
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HEL 46-61

<400> 10
Tyr Asn Thr Asp Gly Ser Thr Asp Tyr Gly Ile Leu Gln Ile Asn Ser
1 5 10 15
Arg

<210> 11
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> all-natural analog of pan DR binding peptide
965.10 with substitutions L-Ala for D-Ala, Phe at
position X2 and Trp at position X6

<400> 11
Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala Ala Ala
1 5 10

<210> 12
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> all-natural analog of pan DR binding peptide
965.10 with substitutions L-Ala for D-Ala, Phe at
position X2 and Asn at position X6

<400> 12
Ala Lys Phe Val Ala Ala Asn Thr Leu Lys Ala Ala Ala
1 5 10

<210> 13
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> all-natural analog of pan DR binding peptide
965.10 with substitutions L-Ala for D-Ala, Phe at
position X2 and Tyr at position X6

<400> 13
Ala Lys Phe Val Ala Ala Tyr Thr Leu Lys Ala Ala Ala
1 5 10

<210> 14
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> all-natural analog of pan DR binding peptide
965.10 with substitutions L-Ala for D-Ala, Phe at
position X2 and Lys at position X6

<400> 14
Ala Lys Phe Val Ala Ala Lys Thr Leu Lys Ala Ala Ala
1 5 10

<210> 15
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> all-natural analog of pan DR binding peptide
965.10 with substitutions L-Ala for D-Ala, Phe at
position X2 and His at position X6

<400> 15
Ala Lys Phe Val Ala Ala His Thr Leu Lys Ala Ala Ala
1 5 10

<210> 16
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
 <223> all-natural analog of pan DR binding peptide
 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Ala at position X6

<400> 16
 Ala Lys Phe Val Ala Ala Ala Thr Leu Lys Ala Ala Ala
 1 5 10

<210> 17
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> central immunodominant circumsporozoite repeat
 region of circumsporozoite protein (CSP) of
 Plasmodium yoelii (PyB)

<400> 17
 Gly Gln Gly Pro Gly Ala Pro Gln Gly Pro Gly Ala Pro Gln Gly Pro
 1 5 10 15
 Gly Ala Pro Gln Gly Pro Gly Ala Pro
 20 25

<210> 18
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> central immunodominant circumsporozoite repeat
 region of circumsporozoite protein (CSP) of
 Plasmodium falciparum (PfB)

<400> 18
 Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro
 1 5 10 15

<210> 19
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> protective B-cell epitope tandem repeat from the
 PyB CSP

<400> 19
 Gln Gly Pro Gly Ala Pro
 1 5

<210> 20
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> universal T-helper epitope from tetanus toxin p30

<400> 20
Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
1 5 10 15
Ala Ser His Leu Glu
20

<210> 21
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> PyCS.1 Plasmodium falciparum B-epitope

<400> 21
Gln Gly Pro Gly Ala Pro Gln Gly Pro Gly Ala Pro
1 5 10

<210> 22
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide 965.17
<221> MOD_RES
<222> (3)...(3)
<223> Xaa = cyclohexylalanine

<221> MOD_RES
<222> (13)...(13)
<223> Xaa = alaninamide

<400> 22
Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Xaa
1 5 10

<210> 23
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide binds more than one DR allele

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = any D- or L-amino acid

<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Ala or Lys

<221> MOD_RES
<222> (3)...(3)
<223> Xaa = cyclohexylalanine, Tyr or Phe

<221> MOD_RES
<222> (4)...(6)
<223> Xaa = Ala, Ile, Ser or Val

<221> MOD_RES
<222> (11)...(12)
<223> Xaa = Ala, Ser or Val

<221> MOD_RES
<222> (13)...(13)
<223> Xaa = any D- or L-amino acid

<400> 23
Xaa Xaa Xaa Xaa Xaa Trp Thr Leu Lys Xaa Xaa Xaa
1 5 10

<210> 24
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide binds more than one DR allele

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = any D- or L-amino acid

<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Ala or Lys

<221> MOD_RES
<222> (3)...(3)
<223> Xaa = cyclohexylalanine, Tyr or Phe

<221> MOD_RES
<222> (4)...(6)
<223> Xaa = Ala, Ile, Ser or Val

<221> MOD_RES
<222> (11)...(13)
<223> Xaa = Ala, Ser or Val

<221> MOD_RES
<222> (14)...(14)
<223> Xaa = any D- or L-amino acid

<400> 24
Xaa Xaa Xaa Xaa Xaa Xaa Trp Thr Leu Lys Xaa Xaa Xaa Xaa
1 5 10

<210> 25
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide binds more than one DR allele

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = any D- or L-amino acid

<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Ala or Lys

<221> MOD_RES
<222> (3)...(3)
<223> Xaa = cyclohexylalanine, Tyr or Phe

64
<221> MOD_RES
<222> (4)...(6)
<223> Xaa = Ala, Ile, Ser or Val

<221> MOD_RES
<222> (11)...(14)
<223> Xaa = Ala, Ser or Val

<221> MOD_RES
<222> (15)...(15)
<223> Xaa = any D- or L-amino acid

<400> 25
Xaa Xaa Xaa Xaa Xaa Xaa Trp Thr Leu Lys Xaa Xaa Xaa Xaa Xaa
1 5 10 15
